



The Humanitarian Mapping Service

(GIS Outputs in Response to Cyclone Pam)

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Malcolm Archbold



MapAction

INTRODUCTION

WHAT WE DO AND HOW WE DO IT



MapAction's Strategic Aim

Being a leading provider of mapping services at the front end of many of the world's major emergencies.



Meeting a vital need

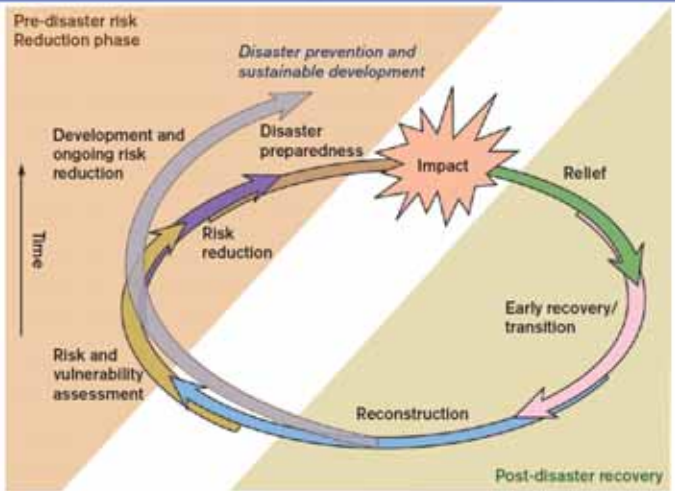
Disasters affect 240 million people every year
(source: International Red Cross Federation)

Most information in disasters has a spatial ("where") component

Targeting relief on areas of greatest need maximises efficient use of scarce resources



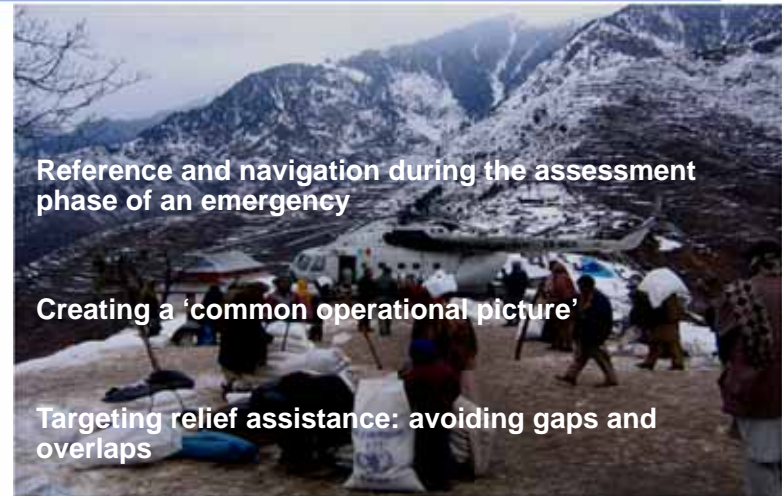
The disaster risk reduction cycle



Source: RIBA 2009



Maps are important for



Reference and navigation during the assessment phase of an emergency

Creating a 'common operational picture'

Targeting relief assistance: avoiding gaps and overlaps



'Professional volunteers'



Deployable & Operational Support Volunteers



Enabled by three technologies



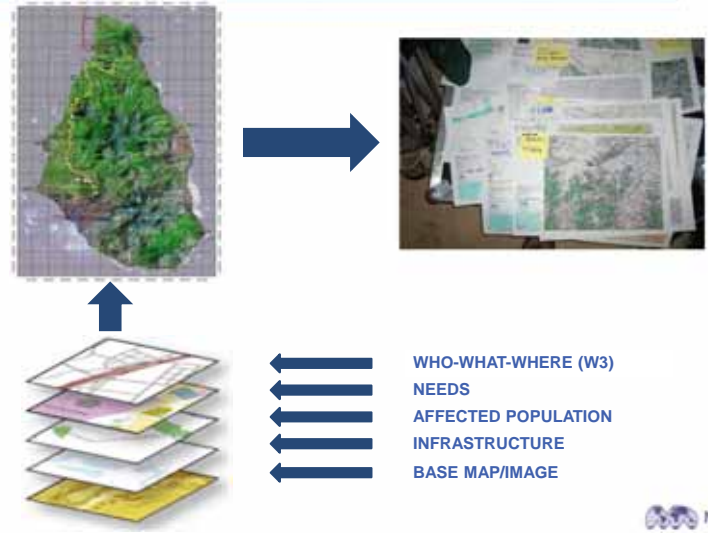
Global Positioning System (GPS)

Satellite imagery and communications

Geographical Information Systems (GIS)



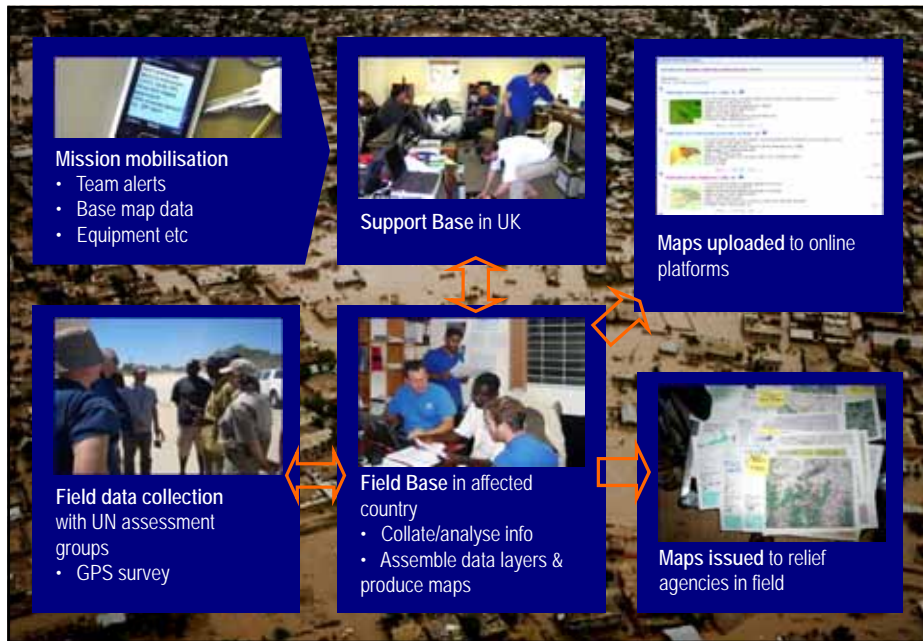
GIS in emergencies



MapAction's capacity



Within 24 hours a MapAction emergency team can be at the disaster scene, gathering data and issuing maps showing crucial information for responders



Field bases



UN offices (Jamaica)



OSOCC set up by MapAction (Kenya)



Tented field base



UNDP office (Haiti)



OSOCC by the pool (Namibia)



Air conditioned luxury (Islamabad)

MapAction support services in the field



- ✦ Data collection, collation and analysis (with UNDAC IM function)
- ✦ Assistance with field assessments (planning, navigation, GPS survey)
- ✦ Design and setup of reference datasets – settlement locators, p-code tables, who-what-where
- ✦ Map preparation and production
- ✦ Advice to partner organisations for continued use of GIS during recovery phase



MapAction's work helps to get aid to the right place to help people in the greatest need





EXPERIENCES IN THE FIELD



Operation experience: Emergencies

- 2003 Lesotho food security
- 2004 Asian tsunami
- 2005 Niger famine
- 2005 Pakistan earthquake
- 2006 Suriname floods
- 2006 Java earthquake
- 2006 Dominican Rep hurricane
- 2006 Kenya floods
- 2007 Ghana floods
- 2007 Jamaica hurricane
- 2007 Mexico floods
- 2008 Bolivia floods
- 2008 Myanmar cyclone
- 2008 Haiti hurricanes
- 2007 Jamaica hurricane
- 2007 Mexico floods
- 2008 Bolivia floods
- 2008 Myanmar cyclone
- 2008 Haiti hurricanes
- 2009 Namibia floods
- 2009 Pakistan IDP crisis
- 2009 Sri Lanka post conflict
- 2009 Benin floods
- 2009 Burkina Faso floods
- 2009 Philippines typhoons
- 2009 Sumatra earthquake
- 2009 El Salvador flash floods
- 2010 Albania floods
- 2010 Haiti earthquake
- 2010 Pakistan Floods
- 2010 St Lucia hurricane
- 2011 Libya complex
- 2011 Japan Earthquake & Tsunami
- 2011 Cote d'Ivoire complex
- 2011 Nicaragua Flooding
- 2012 Philippines typhoon
- 2012 Senegal Sahel food security
- 2012 Madagascar flooding
- 2012 Brazzaville munitions explosion
- 2012 Comoros floods
- 2012 Philippines typhoon
- 2012 Syria complex
- 2013 C.A.R. Complex
- 2013 Myanmar Typhoon
- 2013 India Floods
- 2013 Sudan Floods
- 2013 Philippines Typhoon
- 2014 Paraguay Floods
- 2014 Serbia Floods
- 2014 Ebola Crisis
- 2015 Malawi Floods
- 2015 Chile Floods
- 2015 Vanuatu Cyclone**
- 2015 Nepal Earthquake
- 2015 Mediterranean Refugees
- 2015 Yemen Cyclone



Typhoons: Philippines 2009

Supporting response to storms that affected more than 5 million people



Transferring know-how



CAPACITY BUILDING

- An integrated package of assistance to countries or agencies wanting to improve their IM for emergency response:
 - Scoping and needs analysis
 - Data organisation and improvement
 - Tools and protocols
 - Training and follow up
 - Cementing partnerships in countries and internationally



Training humanitarian professionals

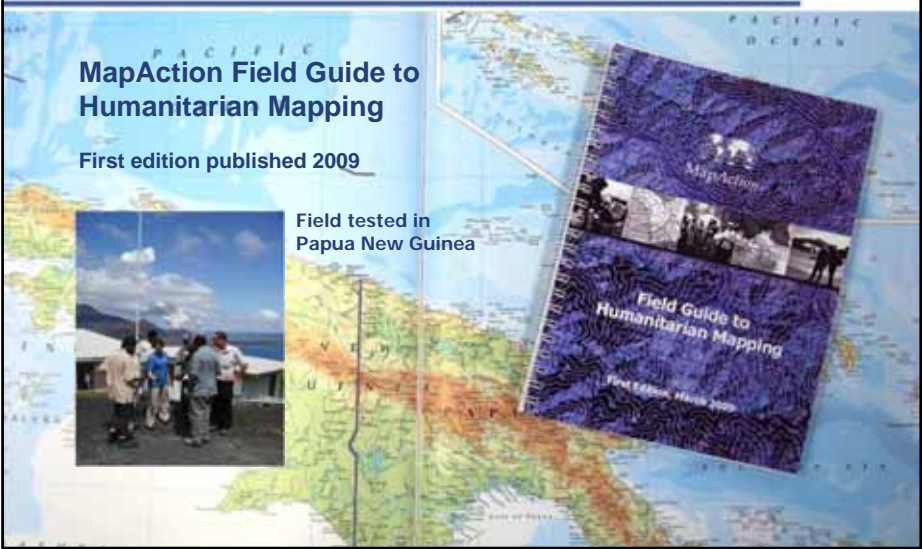
- ✦ UNDAC courses
- ✦ International Red Cross FACT courses
- ✦ NGOs (Oxfam, Save the Children, RedR)
- ✦ Others

Core topics:

- ✦ Using GPS to collect data
- ✦ Spatial data and assessments
- ✦ Basic mapping using Google Earth & other tools



Researching and disseminating new methods



Support structure



Staff team: operations and admin

Logistics

Board of Trustees



Fundraising



London Marathon

RideLondon

MapAction Cycle Challenge





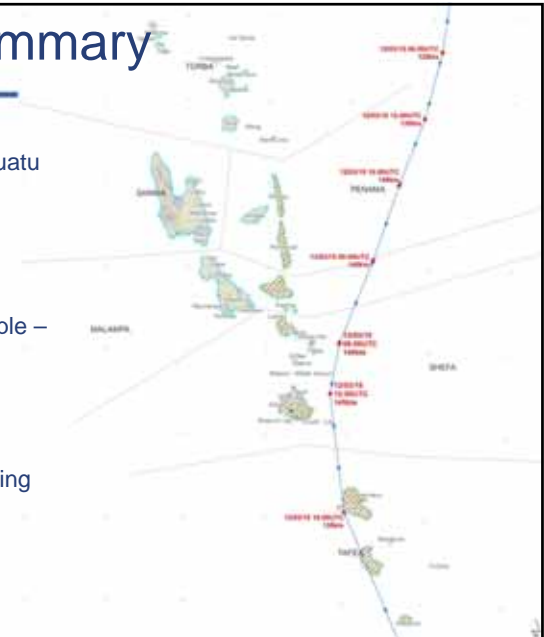
EXAMPLES FROM THE PACIFIC

- Cyclone Pam – Vanuatu 2015
- Preparedness for Emergency Response Information Management – Vanuatu 2015



Emergency Summary

- ▣ **Friday 13th March** - Category 5 storm **Cyclone PAM** struck Vanuatu
- ▣ **Shefa** and **Tafea** the hardest hit provinces
- ▣ Estimated **166,600** affected people – more than half the country's population
- ▣ Only **11 recorded deaths** a testament to a strong early warning system



Humanitarian Issues

- < **Need for emergency shelter**
 - < 90% of shelters destroyed on Erromango
 - < 50% of shelters destroyed on Tanna
- < **Insufficient access to food**
 - < Food stocks largely destroyed
 - < Population relies on subsistence farming
 - < 95% crops destroyed
- < **Lack of safe drinking water**
 - < Water sources destroyed or contaminated



Humanitarian Issues

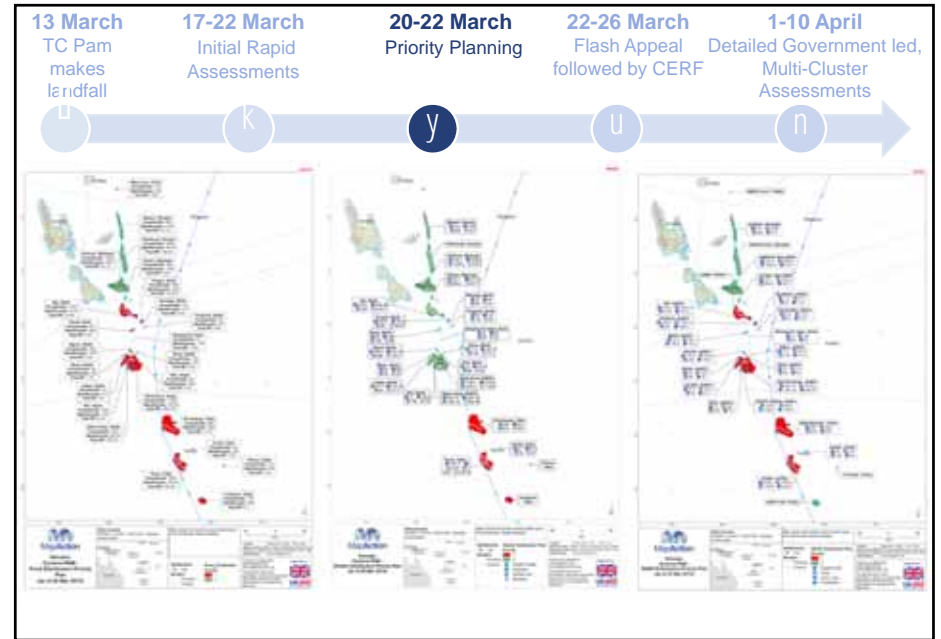
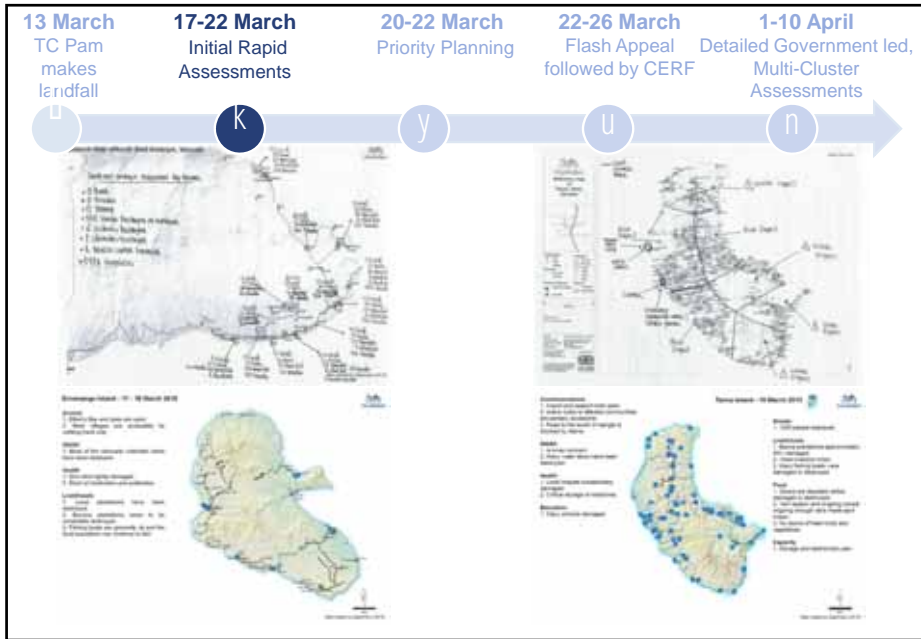
- 📍 **Insufficient access to people in need**
 - 📍 Affected population spread over 22 islands
 - 📍 Logistical challenge to rapid assessments and delivering aid
 - 📍 Telecommunications destroyed
- 📍 **Need for medical facilities and supplies**
 - 📍 Health facilities have been destroyed
 - 📍 Supplies have been stretched thin
 - 📍 Health workers with limited means for emergency care and disease control

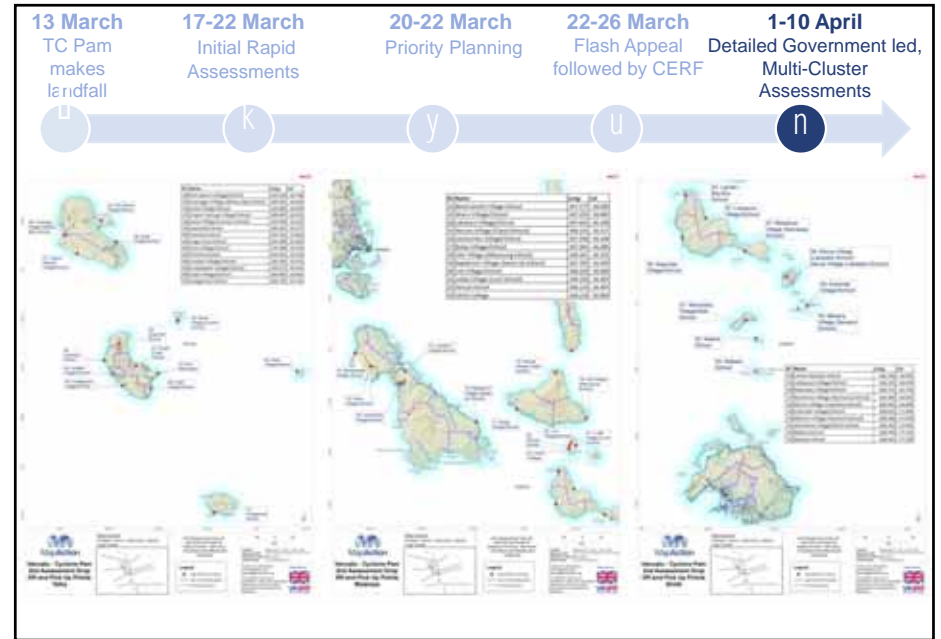


Team

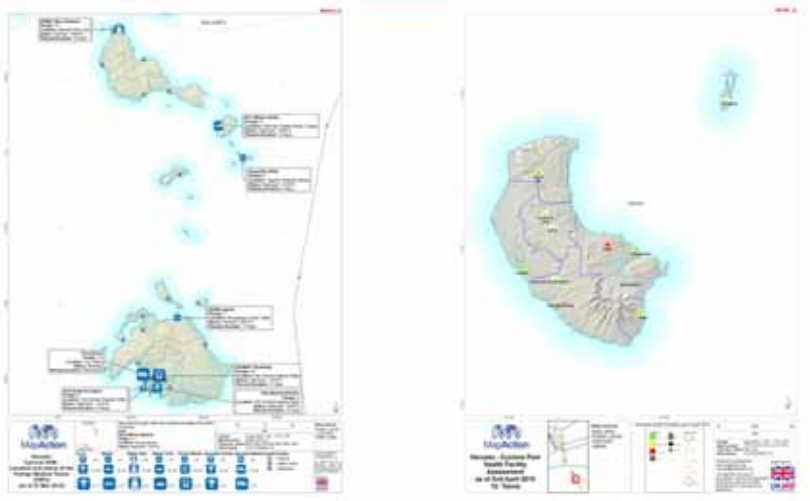
- < MapAction Team
 - < Rotation of 3 people
- < UNDAC Team
- < OCHA
- < OCHA ROP
- < IHP
 - < MSB
 - < Luxemburg
- < TSF
- < RedR Australia







Health & Medical Mapping



www.mapaction.org

marchbold@mapaction.org

