



World Meteorological Organization

Weather • Climate • Water

Impact-Based Forecast and Warning Services Developing a Workplan

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Changing the Paradigm

USER NEEDS



IBFWS – Developing a Workplan – Phase 1

- Designate IBFWS “Champions” in the NMHS
- Identify 2 or 3 key User Sectors to begin with
 - Disaster Management
 - Health
 - Road Transport...
 - Etc..
- Assign the Champions to work with specific User Sectors



IBFWS – Developing a Workplan – Phase 2

- Working with partner agencies, collect available data on hazard impacts, exposure and vulnerabilities.
- Evaluate data and also tools for analysing data
- Match the severity levels of impacts with the severity levels of hazard / warning (how many levels in the Thailand system?)
- Develop the Hazard and Response Matrices for the chosen sectors.



Barbados Example - Impact Matrix

Impact Matrix for emergency management: Winds			
Minimal Impact	Minor Impacts	Significant Impacts	Severe Impacts
<u>Debris</u> Localized loose debris blown around	Localized tumbling of unsecured objects (e.g.: inflatable structures, tents, garbage cans)	Tumbling and rolling of unsecured objects (e.g.: inflatable structures, tents, garbage cans) Injury and danger to life from flying debris	Lifting/airborne of unsecured objects (e.g.: inflatable structures, tents, garbage cans) Widespread danger to life from flying debris
<u>Transportation</u> Isolated transport routes affected	Regional transport routes affected by wind or falling tree limbs Some delays in journey times	Significant transport routes affected by wind and falling trees Significant impacts to first responder operations Significant delays, road closures and traffic congestion	Widespread transport routes and travel services affected for a prolonged periods Severe impacts to first responder operations Delays or cancellation of public transportation Major traffic congestion and stranded residents



Barbados Example - Response Matrix

Response Matrix: Wind			
Very Low - Business as usual	Low - Be Aware	Medium - Be Prepared	High - Take Action
Monitor for changing weather conditions	<p>Be aware of tumbling of unsecured objects, falling limbs, sea spray, and choppy seas in [...locations...].</p> <p>Beware Increased travel times</p> <p>Be aware of downed power lines and isolated power outages</p>	<p>Be prepared for tumbling and rolling of unsecured objects, falling limbs and trees, sea spray, choppy seas and large breaking waves in [...locations...].</p> <p>Secure objects such as garbage cans</p> <p>Be prepared for traffic delays, road closures, and congestion at traffic signals</p> <p>Be prepared for downed power lines, power and utility outages. Prepare for to have extra water and non-perishable food.</p>	<p>Expect for tumbling and rolling of unsecured objects, falling limbs and trees, sea spray, choppy seas and large breaking waves in</p> <p>Secure large objects such as garbage cans if so to do so.</p> <p>Expect significant traffic delays, road closures, and congestion especially in areas with power outages, down trees, utility polls.</p> <p>Avoid driving if possible</p> <p>Expect downed power lines and long power outages.</p> <p>Stay away from impacted areas. Secure extra water, food, and fuel if possible</p>



IBFWS – Developing a Workplan – Phase 3

- Focus on Civil Protection:
 - Develop a technical framework to share information between forecasters and emergency managers (may be GIS maps, shared webpages, routine telephone contact etc.)
 - Develop Standard Operating Procedures for communication and partnering between NMHS and Emergency Management personnel



IBFWS – Developing a Workplan – Phase 4

- Focus on Civil Protection:
 - Provide cross-training for NMHS and CP agency staff
 - Exercise....Exercise....Exercise! Organise “table-top” simulations and exercises regularly between NMHS and CP staff (could be prior to TC season or to the monsoon season...)
 - Include key stakeholders from Transport, Health, Agriculture, Marine etc



IBFWS – Developing a Workplan – Phase 5

- Focus on Education and Outreach:
 - Provide briefings to the Media and prepare articles for newspapers, website, social media etc. to publicise the new developments
 - Develop printed material for the public and circulate through community groups, libraries, city authorities etc.
 - Use every opportunity to raise awareness among citizens and help them to understand how to use forecast and warning information to take proper actions towards safety and security.



IBFWS – Developing a Workplan

- Focus on achievable targets in the short term – start small
- Have a big long-term ambitions!



IBFWS – Developing a Workplan

Action	Who Drives This?	What Resources?	Timescale

