World Meteorological Organization

Weather • Climate • Water

Forming Partnerships for IBFWS

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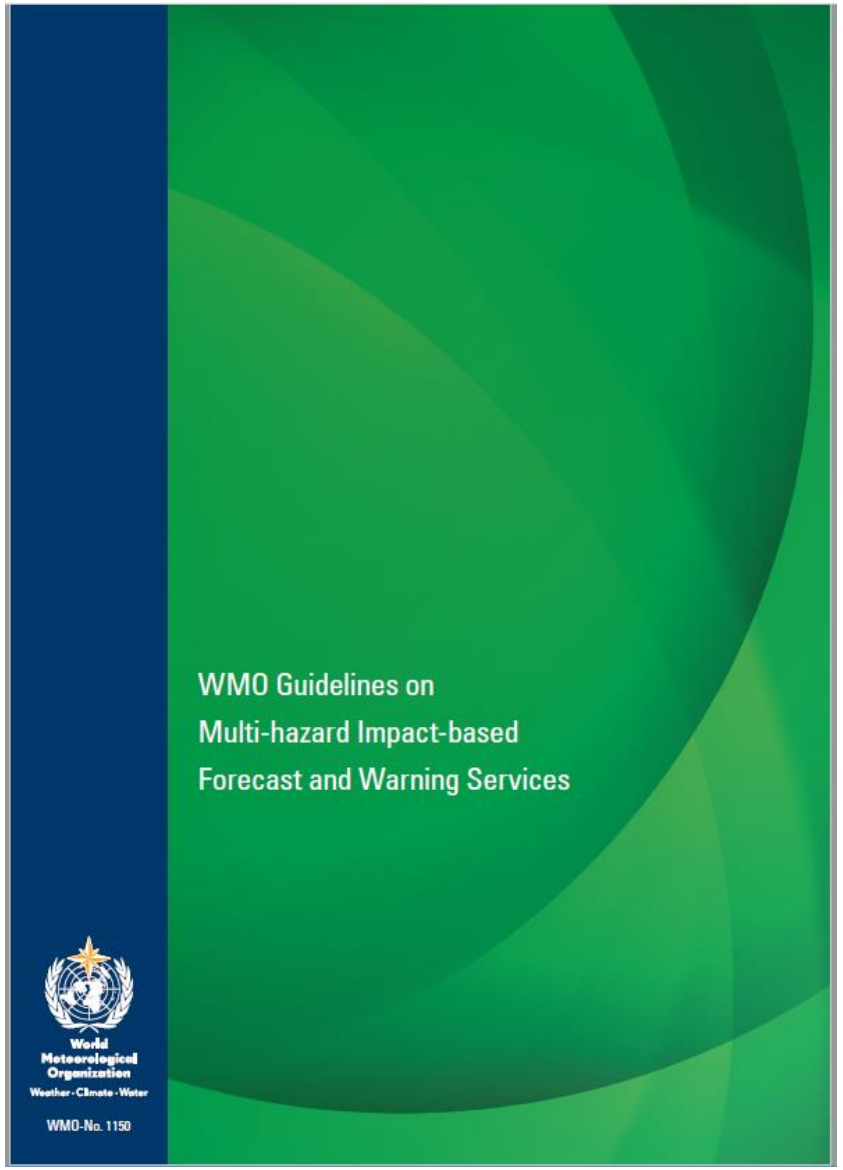
WMO No. 1150

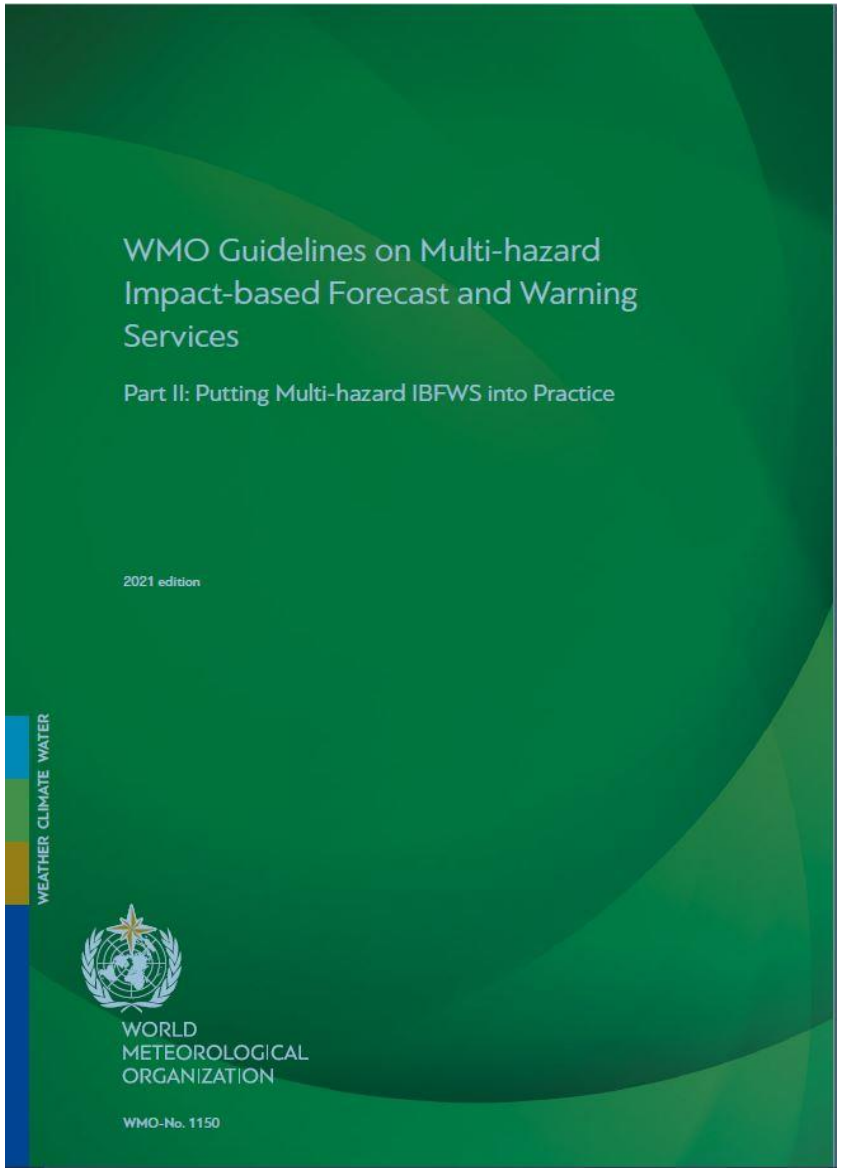
WMO Guidelines on Multi-Hazard Impact-Based Forecast and Warning Services



WMO No. 1150 Part II

WMO Guidelines on Multi-Hazard Impact-Based Forecast and Warning Services

Putting Multi-hazard IBFWS into Practice



Partnerships in IBFWS

Why do we need Partnerships?

- Effective Impact-based Forecasting is based on combining knowledge and understanding from many fields and disciplines.
- Need not just early detection of a hazard, but early recognition of the potential impacts.
- Weather Forecasters cannot do this by themselves!
- Must have additional data, knowledge and understanding

Partnerships in IBFWS

Partnerships are NOT

- Top-down sharing, as from a Developer to a User
- This is unlikely to lead to effective understanding and exploitation of IBFWS

Partnerships NEED

- Substantial engagement between NMHSs and decision-makers
- Clear definitions and acceptance of roles and responsibilities
- A common and collective understanding of decision-making processes.

Five Key Messages about Partnerships and Collaboration

1

Partnerships are essential in developing IBFWS.

NMHSs and similar technical agencies cannot achieve success on their own.

Key partners will include the relevant Disaster Response and Civil Protection Agencies.

Five Key Messages about Partnerships and Collaboration

2

Establishing strong and regular communication with partner agencies is essential.

Five Key Messages about Partnerships and Collaboration

3

While the development of formal Memoranda of Understanding and Service Level Agreements are important, **regular exercises and training** are vital.

Collaborative exercises help to develop inter-agency familiarity, identify barriers to effective operation, and help to reach true readiness.

Five Key Messages about Partnerships and Collaboration

4

Technical guidance and advice needs to be seen and understood as clear and distinct from decision-making, which can encompass political and economic considerations, among others.

Five Key Messages about Partnerships and Collaboration

5

Research is continually needed, especially engaging with the social sciences, so that new knowledge can be developed and incorporated into operations.

Partnerships and Collaboration

At all levels of society (national, regional, district-level, community-level and household-level) there are networks of cooperating bodies that contribute to decision-making, taking early actions to mitigate threats, produce information on the evolution of threats and taking some responsibility for the outcomes.

NMHSs need to develop some understanding of how their hazard warning services will be used if they are to meet the needs of society and decision-makers.

Partnerships and Collaboration

The procedures around Impact-Based Warnings should capture aspects such as:

- What form a warning should take
- How the warning should be communicated
- To what extent the warning should incorporate advice on recommended actions

Partnerships and Collaboration

Warning systems need to be planned and designed in advance with all partners engaged in this process. This will need:

- Sufficient and appropriate resources for all the agencies who have a function in the warning system
- Full support and direction from the agency leaders
- Excellent working relationships at the operational level

Partnerships and Collaboration

There are six primary elements to be considered in the development of partnerships:

1. Users of warnings (at all levels of society)
2. Communication of warnings
3. Civil Protection and other DRM actors in the public and private sectors
4. Information producers (including aid agencies)
5. Political and administrative decision-makers
6. Improvement through research and development

Partnerships and Collaboration

1. Users of warnings (at all levels of society)

a. Warnings are aimed at individuals, communities, other entities…

b. Need many partners to help gather / understand data on exposure and vulnerability (social science, statistics office, local government, engineers, emergency managers, and those at risk)

c. Many perspectives needed to refine the warning system

d. Need shared decision-support systems used across agencies

e. Knowledge of vulnerabilities of people and livelihoods should be well understood and supported in times of crisis.

Partnerships and Collaboration

2. Communication of warnings

a. Technical information will not be the only factor in decision-making

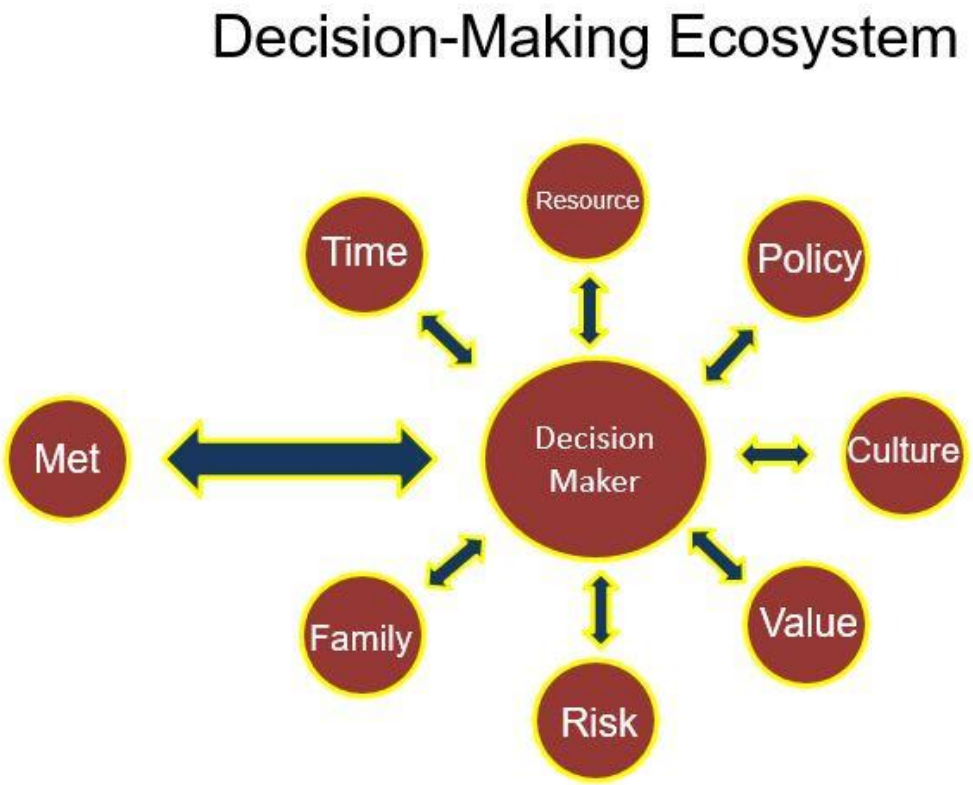
b. Decision-makers must balance many factors, not all of them rational

c. Other influences might be psychological, emotional, political or economic in character

d. Must appreciate the existence of other influences and use those insights to help communicate effectively

e. Consistency of messaging is vital – need proactive communication management.

Partnerships and Collaboration



Partnerships and Collaboration

3. Civil Protection and other DRM actors in the public and private sectors

a. Civil Protection / Emergency Management structures and responsibilities can vary widely from one country to another

b. Investment of time and resources is needed on all sides. Emergency Managers can be “part-time” – working in other roles normally

c. Partnerships are also needed with infrastructure managers, public health officials, agricultural extension workers etc.

d. Partnerships can be codified through formal documents such as MoUs, SLAs and SOPs

e. Routine exercises and workshops are critical in building a common understanding at the operational level and promoting best practice

UK Natural Hazards Partnership

Partnerships and Collaboration

4. Information producers (including aid agencies)

a. Who is actually responsible for issuing impact-based warnings? Frequently it is not the NMHS, but emergency management that is given this authority by government.

b. Strong cooperation between NMHSs and aid agencies, such as the Red Cross / Red Crescent and NGOs, can help those agencies to “translate” weather warnings into meaningful actions on the ground.

c. Example in Europe with the EU Emergency Response and Coordination Centre.

European Emergency Response and Coordination Centre

Partnerships and Collaboration

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c. Example in Europe with the EU Emergency Response and Coordination Centre.

d. NMHSs also need feedback to “see what’s happening out there”

e. Start with Experience – move later to objective impact models.

Partnerships and Collaboration

5. Political and administrative decision-makers

a. Large-scale hazards will usually involve political intervention, for decision-making and/or resource allocation.

b. Evacuation and sheltering orders are normally the responsibility of high levels of government.

c. Politicians – especially local politicians – often have excellent communication networks which can be used to inform people.

d. Transparency is important – need to separate technical guidance from political decisions. This can be very difficult (as with Covid 19…)

e. Try to engage political leaders in exercises to help them to understand the complexities around impact-focused decision-making

Partnerships and Collaboration

6. Improvement through research and development

a. IBFWS is an ongoing process, which needs to be informed by new knowledge.

b. Exposures and vulnerabilities change over time – need to review and reset

c. Science and technology improves – new insights and capabilities

d. Need to broaden and deepen the social science - understand better the social and behavioural response to warnings.

e. Learn from the experience of other countries – eventually hope to achieve an all-hazards system where the compounding effects of multiple hazards can be examined and understood.

Partnerships – achieving clarity in decision options

Partnerships and Collaboration

Developing an agreement between two different organisations. What should be in this agreement?

a. Something about the division of responsibilities – who is responsible for what.

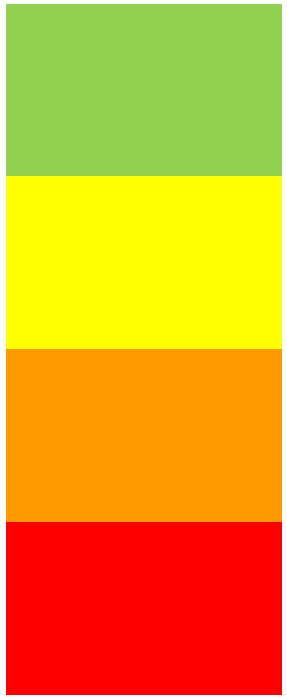
b. Something about data sharing – how can we best share the information gathered by both organisations.

c. Something about communication methods and pathways.

d. Something about routine exercises and workshops to build a common understanding on how best to work together.

e. Something about who should be engaged for different levels of severity.

Partnerships and Collaboration



Meteorological or Hydrological Service	Civil Protection
Normal Forecast issued	Forecast reviewed
Duty Forecaster	Duty Officer
Head of Forecasting	Senior Official
Minister / Under Secretary of State	Minister / Under Secretary of State

Communication Pathways

Partnerships and Collaboration - Exercise

Write down some points that should be included in an agreement between the technical agencies (Meteorological Service) and one of the user organisations.

a) Civil Protection
b) Transport
c) Health
d) Education
e) City Authorities
f) Tourism Organisations