WMO Symposium on Impact-Based Forecast and Warning Services (IBFWS)
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Provider Perspective:

IBFWS Development in Hong Kong — Global Heatwave Risk Alert & Potential Applications

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HKO’s Approach to IBFWS Now

**Existing approach to weather warnings —**

- Mainly threshold-based, e.g. TC signals, rainstorm warnings
  - some with exposure / vulnerability considered, e.g. fire danger / landslide
- Impact/Action – conveyed via the precautionary statements of warnings
- Uncertainty – most-likely scenario (public) or probability categories (special users)
- Stakeholder communication – multi-means/platforms including social media
  - meetings, seminars, SMS, mobile, web, FB, IG, YouTube, TV, radio, surveys, ...

**Under active research & development —**

- **Global Heatwave Risk Alert**
  - EPS-based heatwave forecast with objective impact severity-likelihood assessment
  - Designed in accordance with WMO Guidelines
  - See separate [poster](#) for technical details and case results
- Scientific studies on high-impact risks: e.g. damaging winds, floods, etc.
- Societal impact information: being collected via crowdsourcing, survey, etc.
- Prototype risk assessment tools for educating stakeholders & knowing their needs
IBFWS Plans in the Future

- Evolving approach to weather warnings –
  - Migrating to impact-based / risk-based
  - Convey uncertainties directly in probabilities
    - the need for public education, e.g. YouTube videos
  - Build up impact correlations and risk matrices for different hazards and stakeholders
  - Explore CAP for disseminating risk alerts
  - Set up new forecasting team dedicated for high-impact weather

- IBFWS tools and products –
  - Production of Global Heatwave Risk Alert up 10 days ahead
    - in support of UN and other humanitarian agencies via WMO
  - Risk-based Severe Thunderstorm Warning (damaging gusts focused)
  - Flooding Risk Alert for multi-hazard situation (longer term goal)
    - to conduct impact studies due to heavy rain or storm surge
Thank you