Health DWG: WMO World Weather Research Programme

88th OGC Technical Committee
Washington, DC
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• HIWeather, High Impact Weather project, 2015-2020
• Spans physical and human sciences
• Capitalise on recent advances in hazard forecasting to achieve a jump in resilience
• No direct funding of research, but some funds available for facilitation of collaboration through workshops, forecast demonstrations, inter-comparisons, best practice reviews, standards setting etc
• Health impacts is one key aspect of the human vulnerabilities and impacts theme, but little expert input on priorities
• Approval at the WMO Executive Council in May 2014
5 Hazard Areas:

- **Urban flood**, including sea, rivers and rainfall, with emphasis on megacities of the tropical developing world
- **Wildfire**, emphasising fire fighting and fire management rather than predicting elevated fire risk
- **Localised Extreme Wind**, including localised maxima within tropical and extra-tropical cyclones (e.g. sting jets), tornadoes, downbursts and down-slope windstorms
- **Disruptive winter weather**, including snow, ice, fog & avalanche, focussing on transport, energy, communications
- **Urban heat / air quality**, particular emphasis on health impacts in developing world megacities
5 Themes:

- Predictability and understanding
- Multi-scale prediction of weather-related hazards
- Human impacts, vulnerability and risk
- User-oriented evaluation
- Communication
7 Cross-cutting activities and issues:

• **Applications in the forecasting process**: develop capability to change the operational forecasting process

• **Design of observing strategies**: opportunities & limitations of observing strategies, local sophisticated observing systems, traditional global obs, crowd-sourcing, social networks, & ubiquitous sensors.

• **Uncertainty**: Probabilistic forecasts, understand processes that lead to uncertainty, improve quantifying and evaluating uncertainty, expressing uncertainty

• **Field campaigns and demonstrations**: observations & model outputs for new understanding, verify modelling advances, gather user needs, test new products & communication methods
7 Cross-cutting activities and issues (continued):

- **Knowledge Transfer**: between disciplines, between advanced to less advanced centres, between academic experts and operational centres
- **Verification**: process understanding and model development, identify and measure the benefits achieved by the project
- **Impact Forecasting**: the emphasis on impacts will permeate all of the research themes
WMO WWRP: HIWeather

Applications:
- Interaction and Communication
- Localised Extreme Wind

Wildfire
- Predictability & Processes
- Multi-scale Forecasts
- Vulnerability & Risk
- Evaluation
- Communication

Urban flood
- Applications in the forecasting process
- Design of observing strategies
- Uncertainty
- Field campaigns & demonstrations
- Knowledge Transfer
- Verification
- Impact Forecasting

Disruptive winter weather

Social with Stakeholders
- Economic
- Environmental

Urban heat / air quality
HIWeather Next Steps

• Planning scheduled for a workshop in Silver Springs, Washington DC, 2-4 June 2014.

• Most likely format:
  – Day 1: Presentations
  – Day 2: Breakout groups to formulate activities plan
  – Day 3: Plenary discussion of proposed activities

• If interested in taking part, preferably with own travel funding, WMO would be very interested to hear from you