PLANNING WORKSHOP ON Impact-Based Forecasting and Climate Services

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Review of IBF Working Group Priorities Zaheer Ahmad Babar, PMD, Co-Chair IBF Working Group Shanti Kandel, DHM, Co-Chair IBF Working Group

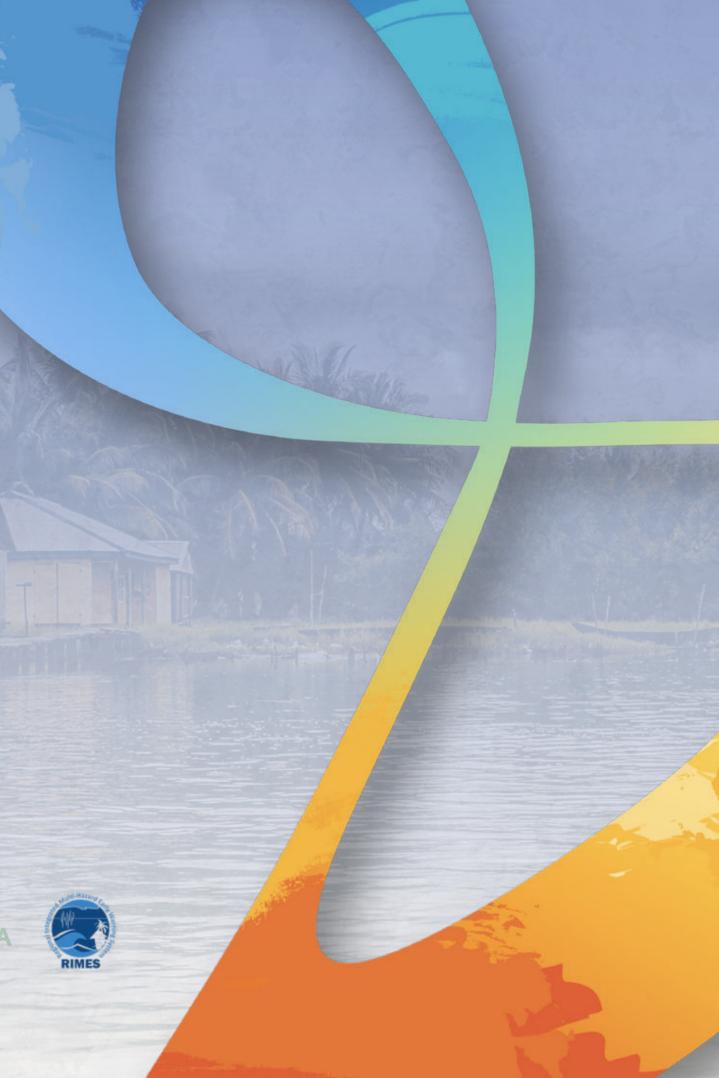














Impact Based Forecasting

Recap...

Impact Based Forecasts

Moving from what the weather will **be** to what the weather will **do**

Hazard:

Type, intensity, location and timing. E.g. 50mm rain in City X on Monday morning between 9-12

Impacts:

What are the impacts of heavy rain in City X. E.g. flooding, traffic jams, health issues relating to sewage overflow

Vulnerability:

Who and how will be affected by these impacts? Impact Based **Forecasts**

Actionable Early Warning Services

Triggers for early action plans

What are impact-based forecasts & warnings?

WMO Guidelines on Multi-hazard Impact-based Forecast and Warning Services

Part II: Putting Multi-hapard IBFWS into Practice

Behaviour

Exposure

Vulnerability

Hazard likelihood

Hazard

WARNING TYPE

Phenomenon-based warning	<u>Rainf</u> 18 hc
Impact-based warning	Rainf hours <u>closu</u>
Impact warning	Expe [city] heavy
Call-to-Action warning	<u>Reco</u> in [cit to floo



fall accumulations of 150mm expected within ours in [local Govt. region] tomorrow.

fall accumulation of 50mm expected within 18 s in [city] tomorrow, <u>which may result in road</u> <u>ures due to flooding</u>.

ect <u>traffic to be delayed</u> tomorrow at rush hour in due to road closures from flooding, caused by ry rainfall.

onsider your commute home tomorrow evening ty], as it is likely that traffic will be delayed due oding of roads, caused by heavy rainfall.

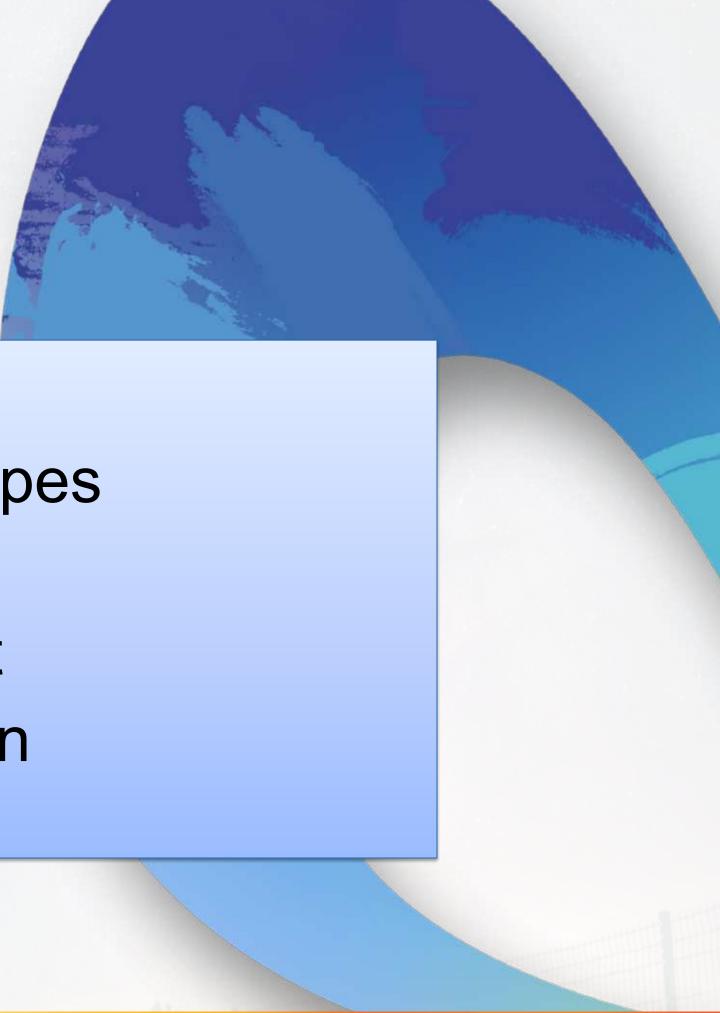


IBF Working Group

Priorities for IBF under SAHF

Key Priorities

- Sustainability of IBF Projects ullet
- **Developing Hazard-Specific Prototypes**
- Structured IBF Pilots
- Sector and Forecaster Engagement •
- **Enhancing Last-Mile Communication**



Sustainability of IBF Projects

Goal: Ensure long-term implementation and impact of IBF initiatives

Key Actions

- Establish dedicated funding mechanisms
- Integrate IBF into national meteorological and hydrological • services (NMHS) workflows
- Develop a roadmap for resource optimization and scalability •

- Institutionalized IBF practices •
- Strengthened partnerships with international and regional • organizations

Developing Hazard-Specific Prototypes

Goal: Address diverse regional hazards through tailored IBF solutions

Key Actions

- Identify priority hazards (e.g., heatwaves, thunderstorms, heavy • rainfall)
- Develop region-specific prototypes leveraging historical and current data
- Collaborate with local experts for validation and refinement

- Effective hazard-specific forecasting tools
- Enhanced preparedness for localized risks •

Structured IBF Pilots

Goal: Test and refine IBF approaches through systematic pilots

Key Actions

- Design pilots using historical data to identify vulnerabilities •
- Incorporate user feedback to ensure relevance and usability •
- Monitor and evaluate pilot outcomes for scalability •

- Evidence-based implementation strategies •
- Data-driven decision-making frameworks •

Engaging Sectors and Forecasters

Goal: Build capacity and foster collaboration among stakeholders

Key Actions

- Conduct targeted training programs for forecasters and sectoral • users
- Promote cross-sector engagement for integrated solutions •
- Develop user-friendly tools and interfaces for diverse • stakeholders

- Improved forecast interpretation and application •
- Stronger collaboration across sectors •

Enhancing Last-Mile Communication

Goal: Ensure actionable information reaches vulnerable communities

Key Actions

- Design communication strategies tailored to local contexts •
- Leverage digital platforms and traditional media for outreach •
- Incorporate behavioural insights to improve response to • warnings 11

- Increased trust and response to early warnings •
- Reduced loss of life and property during hazards •

Summary

Sustainability, hazard-specific prototypes, structured pilots, sectoral engagement, and communication are pivotal for IBF **SUCCESS**

Next Steps

- Develop a detailed action plan for each priority •
- Identify potential partners and funding opportunities •
- Organize follow-up workshops for stakeholder alignment •
- Joint operability teams for IBF implementation
- Collaborative efforts for hazard specific data gathering

Questions/Discussion